REMARKS

Claims 1 and 7-11 are now pending in this application. Claims 1 and 9 are independent. Claim 1 has been amended, claims 7-11 have been added, and claims 2-6 have been canceled by this amendment. No new matter is involved with any claim amendment or new claim.

Drawing Objections

Withdrawal of the objection to the Drawings is requested. Responsive to the Examiner's specific objections, the FIG. 9 has been amended by way of Replacement Drawing Sheet. Further, the Specification has been amended in a way that is believed to render the remaining Drawing Objections moot.

No new matter is involved with any Specification or Drawing amendment. Entry of the Specification amendments and Replacement Drawing Sheet is respectfully requested.

Anticipation Rejection

Withdrawal of the rejection of claim 6 under 35 U.S.C. §102(e) as being anticipated by Purcell (US 6,535,874) is requested. Claim 6 has been canceled, thus rendering its rejection moot.

Unpatentability Rejection over Syeda-Mahmood in View of Mehrotra and Thomas

Withdrawal of the rejection of claims 1-5 under 35 U.S.C. §103(a) as being unpatentable over Syeda-Mahmood (US 5,920,856) in View of Mehrotra et al. (US 6,115,717) and Thomas et al. (US 6,061,692) is requested.

Claims 4-5 have been canceled, thus rendering their rejection moot. Further, the applied art does not teach or suggest all the limitations of claim 1, particularly as amended.

At the outset, Applicant notes that, to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art,

to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference must teach or suggest all the claim limitations.[1] Further, the teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure.[2]

Background Discussion of Applicants' Disclosure

By way of an example of amended claim 1 of the present application, a first server corresponds to a DB server 30 in the specification, which stores metadata 33 pertaining to real data stored in a DB 20. A second server in claim 1 corresponds to a meta DB server 40, which collects metadata 33 saved in the first server (DB server 30) and storing the metadata 33 in a meta DB 41 without storing the real data.

A keyword retrieval request from a user terminal is issued to metadata stored in the second server (meta DB 41), a retrieval result including information pertaining to the first server (DB server 30) which stores the data that matches the keyword retrieval request is transmitted from the second server to the user terminal.

A real data retrieval condition is issued from the user to the first server (DB server 30) directly, by bypassing the second server (meta DB 41).

Distinctions over Syeda-Mahmood

Syeda-Mahmood cited by the Examiner is related to retrieving data in plural web sites by using one web server. In Fig. 1 of Syeda-Mahmood, each of web sites 1 consists of a database, which may be viewed as corresponding to a first server (DB server 30) of the pending claims.

---

[1] *See* MPEP §2143.
[2] *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991) and *See* MPEP §2143.

A web server 2 of Syeda-Mahmood consists of a meta-database, having function of interpreting a request from web clients 3 and retrieving data based on metadata pertaining to the web sites 1. The web server 2 may be viewed as corresponding to the second server (meta DB server 40) of the present invention.

In the Office Action, the Examiner asserts that Syeda-Mahmood discloses a function of saving metadata pertaining to real data stored in data bases, at Fig. 1, item 1, column 5, lines 15-16, column 6, lines 10-13.

In item 1 of Fig. 1, "DATABASE" is indicated, but there is no description of saving metadata. Further, there is only a description of "multimedia database systems at web sites 1" as an explanation for item 1, before lines 15-16 in column 5, which is not related to saving data.

Moreover, the applied art merely describes that "Using this approach, the Web server will assemble the meta-database as follows. Given a set of databases at web sites, an initial meta-database is constructed from structured query templates returned by the individual databases" at column 6, lines 10-13. That is, there is no description that web sites 1 provide the web server 2 with metadata. Syeda-Mahmood merely teaches that the web server 2 assembles the metadata based on structured query templates provided by the web sites 1.

The Examiner also asserts that Syeda-Mahmood discloses a function of collecting metadata saved in the first servers (data base server) and storing the metadata in a metadata database of a second server without storing the real data represented by said metadata (See Fig. 1, item 2, column 4, lines 6-9 and 20-21, column 5, lines 15-16).

In item 2 of Fig. 1, "META-DATABASE" is indicated. However, in column 4, lines 6-9 and 20-21, there is no description of collecting metadata saved in the web sites 1. The reference merely discloses that "the meta-database records information needed for database site selection." Especially, "metadata pertaining to real data stored in database" is used in the present disclosure, as recited in claim 1 and disclosed in the specification. In contrast, in Syeda-Mahmood, only information needed for web site selection is used.

11

In an embodiment of the invention, the second server (metadata DB 40) is for collecting metadata saved in the first servers (database servers). Syeda-Mahmood does not teach how to store metadata in item 2. Applicants disclose and claim a feature that the first server does not actively send metadata to the second server, but the second server accesses to the first servers and obtains metadata.

Accordingly, the first servers are completely independent from the second server, and the second server collects metadata in the first servers when the data saved in the first servers has been updated, or at a predetermined time interval, thereby labor and load on the server management are reduced.

The Examiner also asserts that Syeda-Mahmood discloses that the real data retrieval request is issued by bypassing the second server, in Fig. 3, column 7, lines 17-18. However, as apparent from Fig. 1 of Syeda-Mahmood, the feature thereof is that the web server 2 mediates between databases 1 and clients 3, and a real data retrieval request is not sent to database 1 directly from clients 3. That is, the real data retrieval request is **not** issued by bypassing the second server.

In the present application, the user obtains information of locations of the first servers (address information such as URL) from the retrieval result of the second server, and the real data retrieval condition (SQL) is sent to the first server directly from a user terminal 10, by bypassing the second server.

As discussed above, in the present invention, a user machine 10, a DB server 30 and a meta DB server 40 are in a logical triangular relationship as shown in Fig. 1, and the meta DB server 40 collects metadata stored in the DB server 30.

As the first step, the user machine 10 issues a retrieval request to meta DB server 40, and then receives information of locations of the DB server 30 pertaining to the desired real data and a retrieval condition (SQL) concordant with the DB server 30 from meta DB server 40. Next, a

12

real data retrieval request is sent to the DB server 30 directly from user machine 10, on the basis of the obtained information of locations and the retrieval condition (SQL).

Accordingly, since the user should perform a real data retrieval only for meta DB server 40, even if he does not know where on network a desired real data is, the user can obtain the real data stored in database easily, on the basis of the information of a location of the DB server 30 included in the retrieval result from the meta DB server 40.

Furthermore, in consideration of the difference between various database platforms, when the DB server 30 receives a real data retrieval condition (SQL), the DB server 30 executes the retrieval after converting the retrieval request into a format concordant with each database. Therefore, the user can obtain the real data without issuing different SQL for each database.

As explained above, in Applicants' disclosure, even if the user does not know locations of the databases that store real data, the user can obtain the desired real data easily, and the user can retrieve data without considering the difference between various database platforms since database server converts SQL into a format concordant with each database.

In addition, since metadata database does not have to mediate when a user performs an access to a real data, metadata database can concentrate on retrieval requests from the users and collecting metadata from each database server, which results in reducing load in comparison with Syeda-Mahmood.

The presently claimed invention is clearly different from Syeda-Mahmood, particularly in respect of data transmitted/received between hardware implements and in respect of information processing. Even a combination of Syeda-Mahmood, Mehrotra and Thomas never reach the features of the claimed invention.

Specific Deficiencies of the Applied Art

The applied art, taken alone or in combination, does not teach or suggest a method of data retrieval by a user from a distributed database which includes, among other features, "…issuing a real data retrieval condition from said user terminal to the first server on the basis of said information of a location of the first server, *wherein said real data retrieval condition is issued to said first server by bypassing said second server*; and retrieving, by the first server, the real data from the corresponding database after converting said real data retrieval condition into a format which is concordant with the database", as recited in independent claim 1, as amended.

Accordingly, since the applied art does not teach or suggest all the claimed limitations, withdrawal of the rejection and allowance of claim 1 are requested.

New Claims

New claims 7-11 have been drafted to avoid the applied art and to further define that which Applicants regard as their invention. Consideration and allowance of claims 7-11 are respectfully requested.

Conclusion

In view of the above amendment and remarks, Applicants believe that each of pending claims 1 and 7-11 in this application is in immediate condition for allowance. An early indication of the same would be appreciated.

In the event the Examiner believes an interview might serve to advance the prosecution of this application in any way, the undersigned attorney is available at the telephone number indicated below.

For any fees that are due, including fees for extensions of time, the Director is hereby authorized to charge any fees or credit any overpayment during the pendency of this application

to CBLH Deposit Account No. 22-0185, under Order No. 21776-00033-US1 from which the

undersigned is authorized to draw.

Dated: June 20, 2006   Respectfully submitted,

                                                  By   /Larry J. Hume/
                                                  Larry J. Hume
                                                     Registration No.: 44,163
                                                  CONNOLLY BOVE LODGE & HUTZ LLP
                                                  1990 M Street, N.W., Suite 800
                                                  Washington, DC 20036
                                                  (202) 331-7111
                                                  (202) 293-6229 (Fax)
                                                  Attorney for Applicant

Attachment: Replacement Drawing Sheet (1 sheet, FIG. 9)